

the PCEF is redirected to the selected PCRF (PCRF-2 in FIG. 4). In steps B9-B11, session establishment between the PCEF and the selected PCRF is performed, possibly using also the subscriber information from the SPR/UDR.

[0067] Alternatively, when the DRA operates as a proxy instead of operating in the redirect mode, the DRA requests the session establishment from the selected PCRF (step B12) which may obtain the subscriber information from the SPR/UDR (step B13) and responds to the PCEF with PCC rules, parameters, etc. (step B14).

[0068] Now reference is made to FIG. 5 for illustrating a simplified block diagram of an electronic device that is suitable for use in practicing the exemplary embodiments of this invention.

[0069] A control unit 10, which may be part of or used by a DRA shown in FIGS. 3 and 4, or may implement the process illustrated in FIG. 2, comprises processing resources 11, memory resources 12 and interfaces 13 which are connected by a link 14. The memory resources 12 may include a program comprising program instructions that, when executed by the processing resources, enable the electronic device to operate in accordance with the exemplary embodiments of this invention, as detailed above.

[0070] In general, the exemplary embodiments of this invention may be implemented by computer software stored in the memory resources 12 and executable by the processing resources 11 of the control unit 10, or by hardware, or by a combination of software and/or firmware and hardware in the control unit 10.

[0071] The memory resources 12 may be of any type suitable to the local technical environment and may be implemented using any suitable data storage technology, such as semiconductor-based memory devices, magnetic memory devices and systems, optical memory devices and systems, fixed memory and removable memory. The processing resources 11 may be of any type suitable to the local technical environment, and may include one or more of general purpose computers, special purpose computers, microprocessors, digital signal processors (DSPs) and processors based on a multi-core processor architecture, as non-limiting examples.

[0072] According to an aspect of the invention, an apparatus of a communication network, which may comprise or use the control unit 10, e.g. the DRA as shown in FIG. 3 or 4, and/or which may execute the process shown in FIG. 2, comprises means for detecting that a user or user equipment attaching to the communication network belongs to a usage group, based on group identity information that is allocated to the user or user equipment and identifies the usage group, means for detecting, based on the group identity information, whether or not a first rules function out of several rules functions has been allocated to another user or user equipment of the usage group, and means for, in case it is detected that the first rules function has been allocated to another user or user equipment of the usage group, selecting, for the user or user equipment, the first rules function.

[0073] The means for detecting that a user or user equipment attaching to the communication network belongs to a usage group may comprise means for requesting the group identity information from a database based on an identifier of the user or user equipment, received with a session establishment request for the user or user equipment.

[0074] Alternatively, the means for detecting that a user or user equipment attaching to the communication network belongs to a usage group may comprise means for selecting a

rules function of the several rules functions, and means for requesting the group identity information from the selected rules function based on an identifier of the user or user equipment, received with a session establishment request for the user or user equipment. The apparatus may further comprise means for, in case it is detected that the first rules function has not been allocated to another user or user equipment of the usage group, using, for the user or user equipment, the selected rules function. Otherwise, the apparatus may comprise means for, in case it is detected that the first rules function has been allocated to another user or user equipment of the usage group, sending a cancellation message to cancel the connection towards the selected rules function.

[0075] The apparatus may further comprise means for sending a redirect message to redirect the user or user equipment to the first/selected rules function, for requesting the session establishment from the first/selected rules function.

[0076] Alternatively, the apparatus may comprise means for sending a request message to request the session establishment from the first/selected rules function.

[0077] The usage group may manage usage of at least one of bearers common to/shared by the usage group, bit rates/bandwidth on a bearer common to/shared by the usage group, and applications/services using a bearer common to/shared by the usage group.

[0078] The usage group may comprise a usage monitoring group for monitoring volume or time based usage of resources shared by the usage monitoring group.

[0079] The means for detecting, selecting, requesting, using and sending may be implemented by the processing resources 11, memory resources 12 and interfaces 13 of the control unit 10.

[0080] It is to be understood that the above description is illustrative of the invention and is not to be construed as limiting the invention. Various modifications and applications may occur to those skilled in the art without departing from the true spirit and scope of the invention as defined by the appended claims.

1. A method for use by an apparatus of a communication network, the method comprising:

detecting that a user or user equipment attaching to the communication network belongs to a usage group, based on group identity information that is allocated to the user or user equipment and identifies the usage group;

detecting, based on the group identity information, whether or not a first rules function out of several rules functions has been allocated to another user or user equipment of the usage group; and

in case it is detected that the first rules function has been allocated to another user or user equipment of the usage group, selecting, for the user or user equipment, the first rules function.

2. The method of claim 1, the detecting comprising: requesting the group identity information from a database based on an identifier of the user or user equipment, received with a session establishment request for the user or user equipment.

3. The method of claim 1, the detecting comprising: selecting a rules function of the several rules functions; and requesting the group identity information from the selected rules function based on an identifier of the user or user equipment, received with a session establishment request for the user or user equipment.